APR 1 8 1995

TWIN STATE ENVIRONMENTAL CORP.

P.O. Box 719, Commercial Park, 1A Huntington Road, Richmond, VT 05477

Tel.: (802) 434-3350 • Fax (802) 434-4478

Phase (check one)	Type (check one)
☐ Initial Site Investigation	☐ Work Scope
☐ Corrective Action feasibility Investigation	☑ Technical Report
☐ Corrective Action Plan	☐ PCF Reimbursement Request
☐ Corrective Action Summary Rpt	☐ General Correspondence
☑ Operations & Monitoring Report	

SUPPLEMENTAL
SITE INVESTIGATION

Benson Town Garage
Hulett Hill Road
Benson, Vermont

SMS Site #91-1166

TSEC #94-106

April 7, 1995

Prepared for:
Addison-Rutland Supervisory Union
Fairhaven, Vermont
05743-1094
(802) 265-4905
Contact: Raymond Pentkowski

Written By:

Jennifer von Rohr
Project Manager

Reviewed By:

John R. Diego
Vice President

1.0 Introduction

This report has been prepared by Twin State Environmental Corporation (TSEC) to summarize the Supplemental Site Investigation activities conducted at the Benson Town Garage (SITE) located on Hulett Hill Road in Benson, Vermont (**Figure 1**). The activities conducted for this phase of investigation were proposed for implementation in TSEC's Work Plan dated November 7, 1994, and subsequently approved by the Vermont Agency of Natural Resources, Sites Management Section (SMS) on November 16, 1994.

2.0 Summary of Project Activities

The supplemental activities proposed for this phase of investigation were intended to characterize and define the extent of groundwater contamination originating from the SITE, and investigate the extent of the soil staining in the vicinity of MW-2. As a result of weather induced site conditions and access restrictions however, activities conducted for this phase of investigation were limited to:

1. The solicitation of access for sampling and well installations.
2. The sampling of groundwater for data and analysis.
3. The preparation of this report.

Activities which were originally proposed but not conducted include the installation of two monitoring wells; delineation of stained soils by Photoionization Detector (PID) screening; and, sampling of surrounding drinking water wells for laboratory analysis.

3.0 Results and Interpretation

3.1 Well Drilling Access

As detailed to the SMS in letters dated December 6, 1994 and January 19, 1995 (copies of these letters are provided in **Attachment 1**), TSEC encountered unforeseen difficulties with obtaining access to the proposed monitoring well locations. These wells were proposed to evaluate off-site contamination levels in the vicinity of the Benson Town Garage, on the opposite side of Hulett Hill Road.

3.2 Water Supply Sampling

TSEC also attempted to gain access to nearby drinking water wells for the purpose of collecting samples for laboratory analysis. A total of four well owners were contacted, one of which provided TSEC with permission to conduct sampling. Despite permission and advance arrangements, however, the well owner was not home at the prearranged sampling time. This well, therefore was not sampled for analysis.

3.3 Surface Staining Survey

On March 2, 1995, TSEC attempted to survey the extent of the surface staining which is present in the vicinity of MW-2. Due, however to the presence of significant snow cover and a thoroughly frozen ground surface this task was not possible.

3.4 Groundwater Sampling

TSEC conducted groundwater sampling at the SITE on March 2, 1995 for the collection of data and samples for analysis. Wells which were sampled at that time include: MW-2, MW-3, MW-203 and MW-202. MW-201 was inaccessible for sampling due to the presence of significant snow cover and miscellaneous debris.

Sampling of each monitoring well was conducted in accordance with TSEC's Standard Operating Procedures for well sampling. These procedures include the collection of water elevation data, purging a minimum of three well volumes from each well, and collecting samples for analysis with the use of a dedicated, disposable Teflon bailer. All purge water removed from these wells was discharged directly to the ground surface.

3.4.1 Groundwater Elevation Data

As a result of data collected from this groundwater sampling episode, it was determined that the depth from the surveyed top of casing (TOC) elevations to the overburden water table ranged from 2.40 feet in the vicinity of MW-3 to 3.85 feet in the vicinity of MW-2. Groundwater flow direction based on these data is from north to south with a hydraulic gradient of 0.04 ft/ft. An interpretation of the groundwater elevation data is presented as a groundwater contour map on **Figure 4** and the water elevation data are summarized on **Table 1**.

Table 1 also includes comments pertaining to visual observations made by the sampler at the time of sampling. As indicated, a sheen or black globules was observed in purge water removed from three of the four wells sampled. Wells which exhibited these characteristics include MW-2, MW-3 and MW-202.

3.4.2 Groundwater Quality Results

Samples from each monitoring well were submitted to ChemServe Environmental Analysts of Milford, New Hampshire for the analysis of Volatile Organic Compounds (VOCs) by USEPA Method 8020. As

proposed, quality assurance/quality control (QA/QC) samples, including one trip blank and one duplicate sample from MW-202 (identified as MW-202D) were additionally analyzed for VOCs by Method 8020.

The analytical results from this groundwater sampling effort are summarized on **Table 2**, and a copy of the laboratory report is provided as **Attachment 2** to this report. Monitoring wells MW-2 and MW-3 were found to exceed the method detection limit of 1 ug/l for each of the compounds Toluene, Ethyl Benzene and Total Xylenes. MW-3 additionally contained a detectable level of the compound Benzene. And MW-202 revealed a detectable level of the compound Benzene, but no other compounds were detected. Total Benzene, Toluene, Ethyl Benzene and Xylenes (BTEX) levels reported for these wells ranged from a low concentration of 2 ug/l reported for MW-202, to a high of 3,115 ug/l in MW-3. The total BTEX concentration reported for MW-2 was 99 ug/l.

None of the sampled wells were reported to contain detectable levels of the compound MTBE.

Table 2 also notes the Vermont Groundwater Enforcement Standard (VGES) for each of the compounds identified by this groundwater sampling episode. As indicated, the VGES for Benzene (5.0 ug/l) and Total Xylenes (400 ug/l) were exceeded in the sample analyzed from MW-3. No other wells analyzed for this event exhibited contaminant levels above VGES levels.

A comparison of the results generated by this sampling to the previous round conducted by TSEC on August 25, 1995 is presented on **Table 3**. As noted, several trends are evident:

- The current total BTEX level reported for **MW-2** (99 ug/l) represents a reduction from the August 1994 level of 217 ug/l. Contamination detected by both rounds, however, revealed the presence of the same compounds.

- Contamination detected in **MW-3** by the current round of sampling reflects a slight increase from the August 1994 event. The make-up of the contamination detected also remains similar, except that the compound MTBE was detected in the August sample, but was not detected by the current round of analysis.

- The previous round of sampling revealed no detectable levels of BTEX compounds or MTBE in **MW-202**. The current round

of sampling, however reports this well to contain a Benzene level slightly above the method detection limit. No other compounds were detected by the current analysis of this well.

- Both rounds of sampling revealed no detectable BTEX or MTBE contamination in **MW-203**.

4.0 Summary

As a result of the activities conducted at this site to date, it has been determined that one or more of the site's three former USTs has contributed to subsurface soil and groundwater contamination. In addition, leaching of contamination from surface stains, as a result of leaks from heavy equipment may also contribute to the groundwater contamination associated with the SITE. To date, the extent of contamination migrating off SITE has not been determined.

In order to consider what impact SITE conditions may have on the movement of contamination, the following discussions pertaining to the SITE's geology and hydrogeology have been prepared. These interpretations are based on data generated by TSEC during the Initial Site Investigation conducted of the SITE.

4.1 Site Geology

Data generated from the soil borings conducted for the installation of monitoring wells MW-201, MW-202 and MW-203, all show cohesive soil consisting of silt and fine sand with traces of clay and fine gravel in the depth interval of 0-8 feet below the ground surface (BGS). Several split spoon samples also contained shale fragments or cobbles. Blow counts recorded in each boring show soil density increasing with depth. Typically, the soils were soft to a depth of 4 feet BGS, and became very stiff or hard between 6 and 8 feet BGS, thus indicating the presence of till. Based on the determined depth to groundwater underlying the SITE (2.40 - 3.85 feet BGS), this till layer is situated below the groundwater, and therefore, serves as an impeding layer to the overburden aquifer.

PID screening of soil samples collected throughout the drilling of MW-201 and MW-203 revealed no detectable levels of organic vapors. The highest PID reading detected during the drilling of MW-202 was 5.1 ppmv at a depth of 4 feet BGS. No PID readings were detected below this depth, indicating this to be the top of a confining layer.

4.2 Site Hydrogeology

Based on drilling and groundwater sampling activities conducted at this SITE to date, it appears that the groundwater underlying the SITE is a perched aquifer, and the depth to groundwater in the source area is shallow. A review of available maps indicates that the surrounding area also likely contains a shallow, perched water table, as a number of wet areas, including an unnamed tributary located approximately 1,400 feet directly downgradient from the SITE, exist in the area surrounding the SITE.

Groundwater flux through the SITE is probably limited due to the low permeability of the soils. The area directly downgradient from the SITE is unimproved and appears likely to be wet except during the summer months. The unnamed tributary referenced above is likely to be recharged via overland flow and limited baseflow. Although TSEC currently has no soil boring data from the area downgradient from the site, it appears that this area represents the groundwater outflow boundary, in which a seepage face has formed. This seepage face is likely the result of the groundwater gradient.

5.0 CONCLUSIONS

Based on the conceptional hydrogeology model discussed above, the area downgradient from the site is likely to provide a natural bioremediation and oxygenation system. These influences, as well as the cohesive soils may be sufficient to naturally attenuate the contamination originating from the SITE, thus alleviating the potential for risk to surrounding water supply systems.

The presence of the underlying till layer which has been associated with the SITE may serve as a barrier to the vertical migration of contamination, thus minimizing risk to underlying aquifers.

6.0 RECOMMENDATIONS

Due to problems with gaining access for sampling and monitoring well installations, TSEC recommends sampling the surface water seepage faces downgradient from the SITE in lieu of installing downgradient monitoring wells as originally proposed.

TSEC also recommends sampling the on-SITE monitoring wells for Total Petroleum Hydrocarbons (TPH) by USEPA Methods 8100 (TPH as Fuel Oil) and 8015 (TPH as Gasoline). The combination of these parameters will aid in fingerprinting the source(s) of contamination, including the identification of the source of sheens and black globules observed in several of the monitoring wells.

In order to prevent the introduction of contamination from the surface into Well MW-203, TSEC also proposes to replace the damaged casing around MW-203.

TABLES

TABLE 1

Summary of Water Elevation Data

Benson Town Garage
Hulett Hill Road, Benson, Vermont

Well Identification	Measured Depth to Water Level (feet)	Top of Casing Surveyed Elevation (feet)	Water Level Elevation (feet)	Notes
MW-2	3.85	99.61	95.76	Black globules present in purge water
MW-3	2.40	96.38	93.98	Slight sheen on purge water
MW-201	---	103.80	---	Not Accessible
MW-202	2.44	96.86	94.42	Black globules present in purge water
MW-203	3.85	98.45	94.60	Steel Casing around well guard broken

Notes:

All water elevation data collected by TSEC on March 2, 1995.
Data summarized above has been used to generate the groundwater contour map provided as Figure 2.

TABLE 2

Summary of Analytical Results
Groundwater Sampling
Benson Town Garage
Hulett Hill Road, Benson, Vermont

	RESULTS (UG/L)				
Sample Identification	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Total BTEX
MW-2	ND	8	7	84	99
MW-3	100	420	465	2,130	3,115
MW-202	2	ND	ND	ND	2
MW-202D	2	ND	ND	ND	2
MW-2030	ND	ND	ND	ND	--
Trip Blank	ND	ND	ND	ND	--
VGES	5.0	2,420	680	400	---

NOTES:

ND Indicates compound was not detected above the method detection limit.
MW-202D represents a duplicate sample collected from MW-202.
VGES Indicates Vermont Groundwater Enforcement Standard.
Shading indicates compound was detected in the identified sample at a level above the applicable enforcement standard.
All samples were collected by TSEC on March 2, 1995.
All analysis conducted by ChemServe Environmental Analysts using USEPA Method 8020.
The complete laboratory report for the results summarized above is provided in Attachment 2.

TABLE 3

Comparison of Analytical Results
Groundwater Sampling
Benson Town Garage
Hulett Hill Road, Benson, Vermont

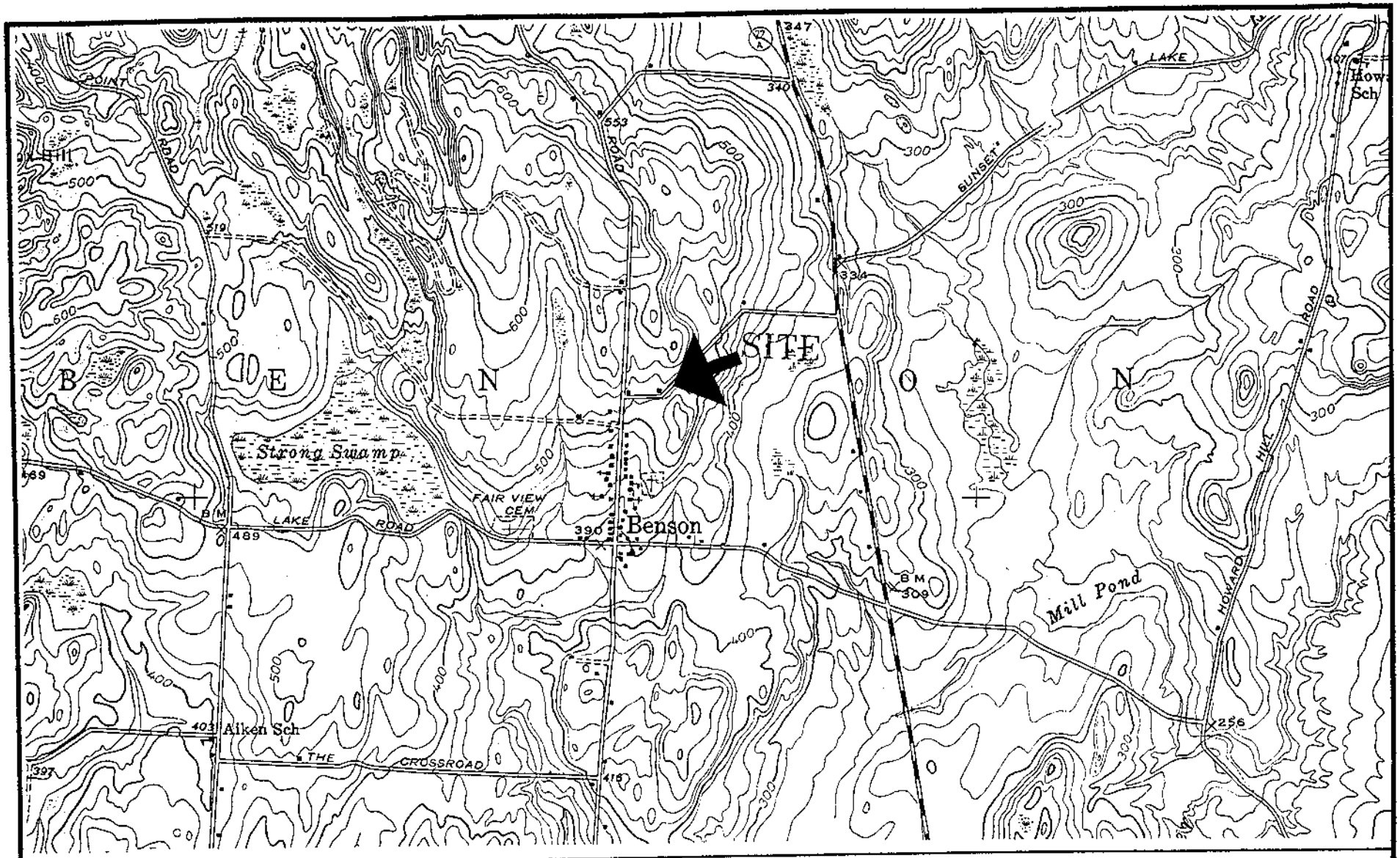
August 25, 1994 - March 2, 1995

Sample Identification	Sample Date	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Total BTEX	MTBE
MW-2	8/25/94	ND	7	23	187	217	ND
MW-2	3/2/95	ND	8	7	84	99	ND
MW-3	8/25/94	150	370	460	1,760	2,740	20
MW-3	3/2/95	100	420	465	2,130	3,115	ND
MW-202	8/25/95	ND	ND	ND	ND	--	ND
MW-202	3/2/95	2	ND	ND	ND	2	ND
MW-203	8/25/94	ND	ND	ND	ND	--	ND
MW-203	3/2/94	ND	ND	ND	ND	--	ND

Notes:

All results reported in ug/l.
All sampling conducted by TSEC.
All analysis conducted by ChemServe Environmental Analysts using EPA Method 8020.
Results for samples collected on 8/25/94 were reported in TSEC's Site Investigation Report dated September 24, 1994.

FIGURES

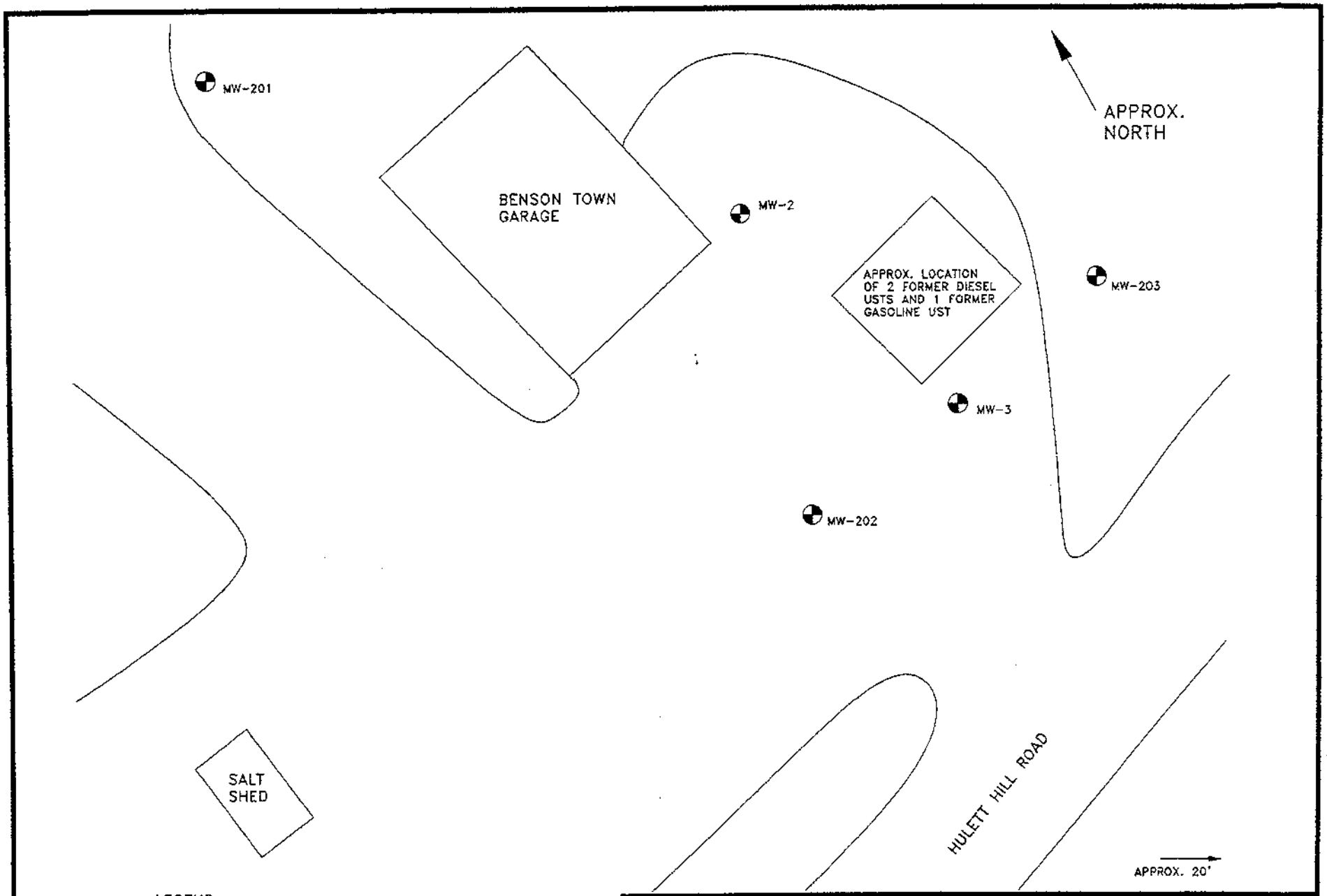


N

Source: USGS Benson, Vermont/New York Quadrangle.

mcd:\projects\94-106\fig1.skd

Project No: 94-106	Designed By: Checked By: Approved By: jd Drawn By: mcd Scale: 1: 24,000 Date: 3/30/95	TWIN STATE ENVIRONMENTAL CORP. 1A Huntington Rd. P.O. Box 719 Richmond, Vermont (802) 434-3360	FIGURE 1 SITE LOCATION MAP Benson Town Garage Hulett Hill Road Benson, Vermont



LEGEND

INDICATES MONITORING WELL LOCATION.

SURVEY CONDUCTED BY TSEC ON 8/25/94. THE LOCATIONS OF MW-201 AND THE SALT SHED ARE APROXIMATE.

Project No.: 94-106	
Designed By:	
Checked By:	
Approved By: jvr	
Drawn By: mcd	
Scale: 1" = 20'	
Date: 9/7/94	

TWIN STATE ENVIRONMENTAL CORP.
1A Huntington Rd.
P.O. Box 719
Richmond, Vermont
(802) 434-3350

FIGURE 2
SITE PLAN

Benson Town Garage
Hulett Hill Road
Benson, Vermont

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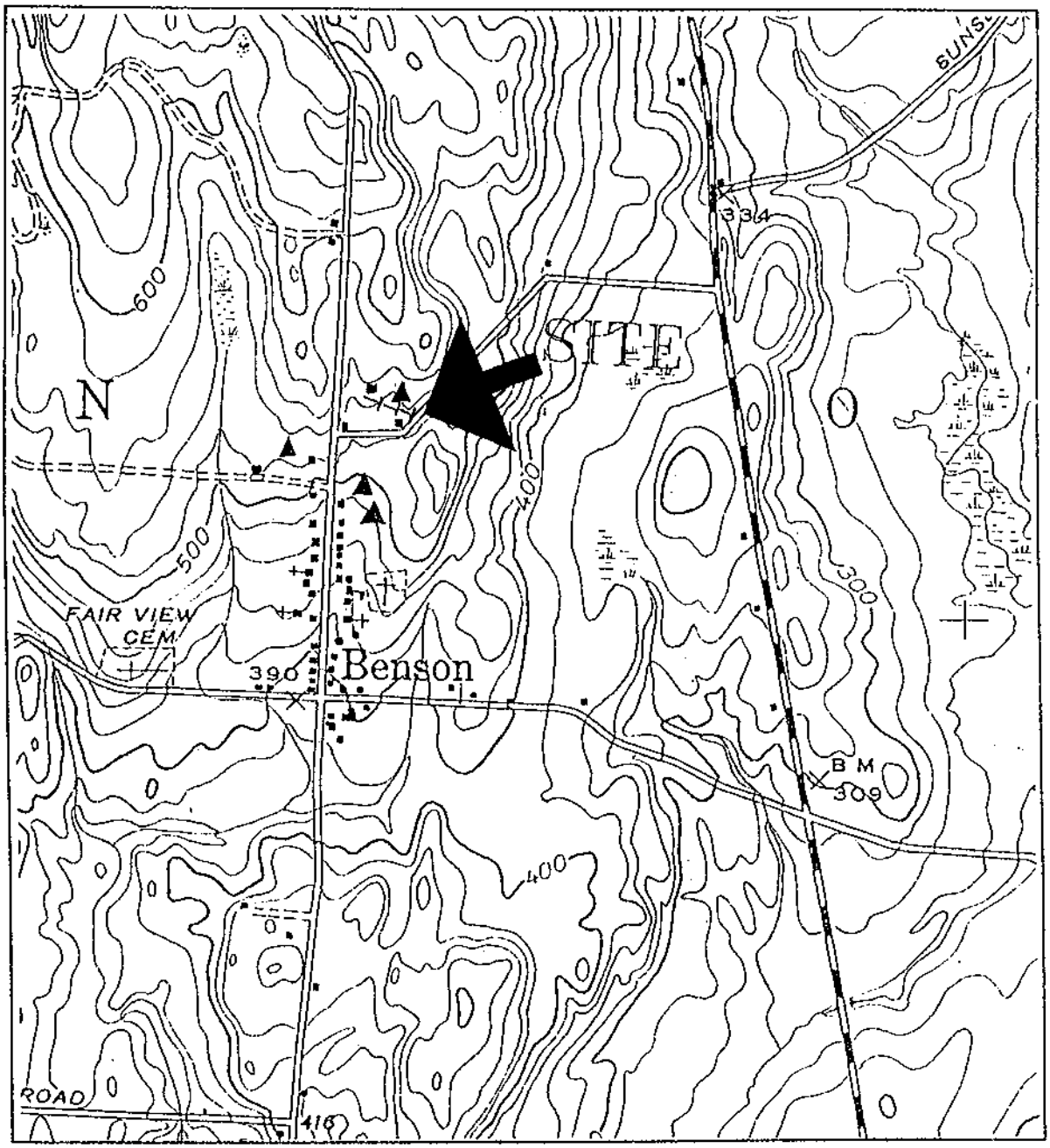


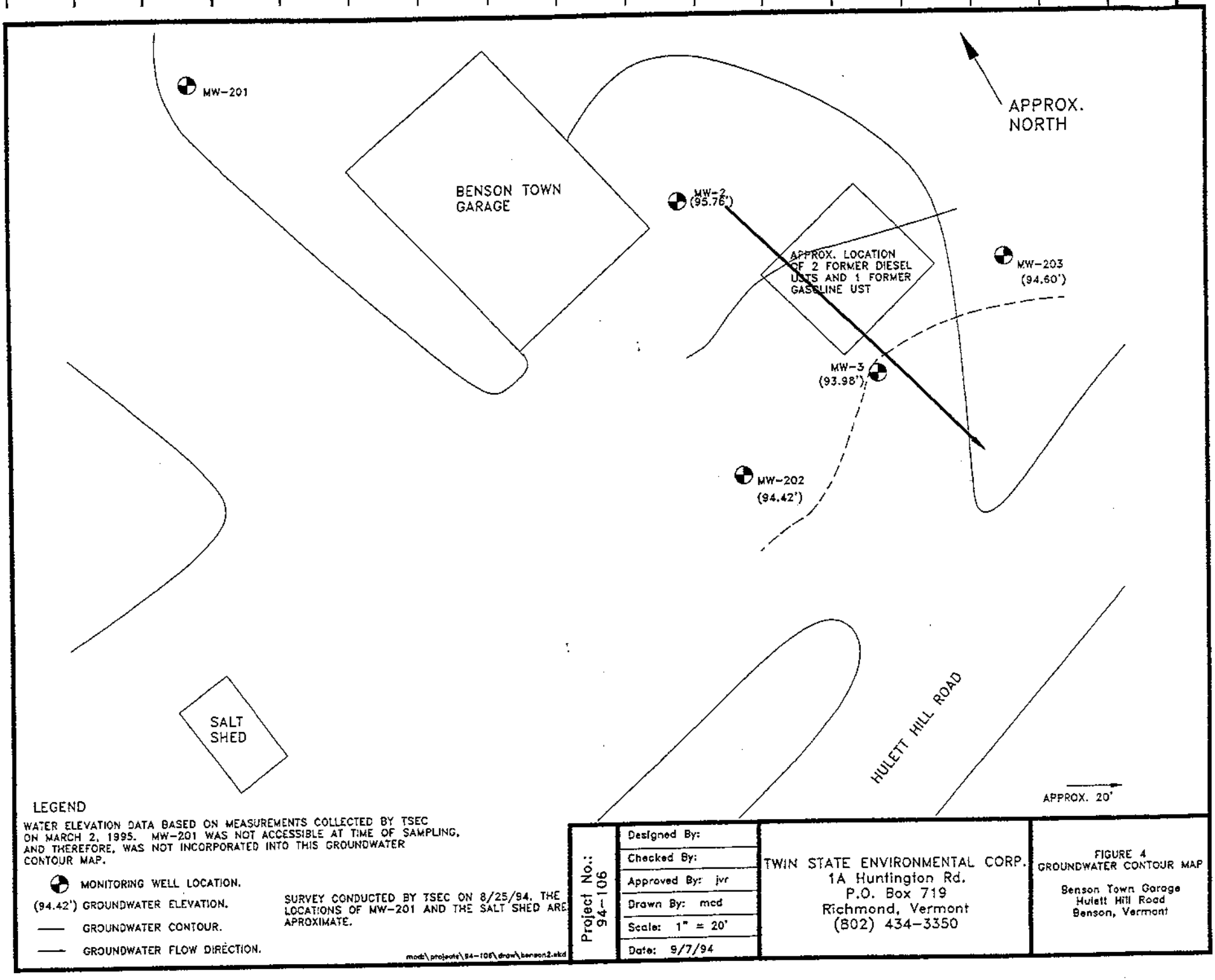
FIGURE 3
SENSITIVE RECEPTOR MAP
BENSON TOWN GARAGE
HULETT HILL ROAD, BENSON, VERMONT

N

Notes:

▲ Approximate location of private drinking water well
—|—|— Approximate location of intermittent surface water

Source: USGS Benson Vermont/New York Quadrant, 1946.



LEGEND

WATER ELEVATION DATA BASED ON MEASUREMENTS COLLECTED BY TSEC ON MARCH 2, 1995. MW-201 WAS NOT ACCESSIBLE AT TIME OF SAMPLING, AND THEREFORE, WAS NOT INCORPORATED INTO THIS GROUNDWATER CONTOUR MAP.

- MONITORING WELL LOCATION.
- (94.42') GROUNDWATER ELEVATION.
- —— GROUNDWATER CONTOUR.
- —— GROUNDWATER FLOW DIRECTION.

SURVEY CONDUCTED BY TSEC ON 8/25/94. THE LOCATIONS OF MW-201 AND THE SALT SHED ARE APROXIMATE.

mod:\projects\94-106\draw\benson2.skd

Project No.: 94-106

Designed By:	
Checked By:	
Approved By:	jvr
Drawn By:	mcd
Scale:	1" = 20'
Date:	9/7/94

TWIN STATE ENVIRONMENTAL CORP.
1A Huntington Rd.
P.O. Box 719
Richmond, Vermont
(802) 434-3350

FIGURE 4
GROUNDWATER CONTOUR MAP

Benson Town Garage
Hulett Hill Road
Benson, Vermont

ATTACHMENT 1

REFERENCED CORRESPONDENCE

94-106

TWIN STATE ENVIRONMENTAL CORP.

P.O. Box 719, Commercial Park, 1A Huntington Road, Richmond, VT 05477
Tel.: (802) 434-3350 • Fax (802) 434-4478

December 6, 1994

Mr. Michael Young
Vermont Agency of Natural Resources
Sites Management Section
103 South Main Street/West Office
Waterbury, VT 05671-0404

RE: Benson Town Garage
SMS Site No. 91-1161
TSEC Project No. 94-106

Dear Michael:

In pursuing the implementation of supplemental investigation activities at the above referenced site, Twin State Environmental Corporation (TSEC) has encountered unforeseen difficulties with obtaining permission to drill and install monitoring wells in the locations proposed. Due to these difficulties, it appears that the anticipated eight to ten week schedule proposed for this project will be exceeded.

I will keep you appraised of this situation as it changes. In the meantime, please call me if you have any questions. I can be reached at (802) 434-3350.

Thank you,

TWIN STATE ENVIRONMENTAL CORPORATION

Jennifer von Rohr

Jennifer von Rohr
Project Manager

cc: Ray Pentkowski, Addison-Rutland Supervisory Union

04-106 B

TWIN STATE ENVIRONMENTAL CORP.

P.O. Box 719, Commercial Park, 1A Huntington Road, Richmond, VT 05477
Tel.: (802) 434-3350 • Fax (802) 434-4478

January 19, 1995

Mr. Michael Young
Sites Management Section
Agency of Natural Resources
103 South Main Street/West Office
Waterbury, Vermont 05671-0404

RE: Benson Town Garage
SMS Site No. 91-1161
TSEC Project No. 94-106

Dear Michael:

In follow-up to our recent phone conversation, I have prepared this correspondence to document the status of the Benson Town Garage site investigation project.

TSEC proposed the installation of two (2) monitoring wells within the vicinity of the Benson Town Garage, on the opposite side of Huellett Hill Road. Approval for the implementation of this task was provided by the Sites Management Section of the Vermont Agency of Natural Resources (SMS). TSEC proceeded with this task by soliciting permission from the Town of Benson to access this area for drilling purposes. Despite the utility right of way in this area, TSEC was required to first obtain permission for these activities from the individual property owner, Mr. Scott Belden of Fairhaven, VT. This permission was solicited from Mr. Belden, but denied. As a result, the Benson board of Selectmen also denied permission to access this area.

As you know from our conversation, it does not appear that this issue will be resolved without the involvement of the SMS. Therefore, TSEC suggests that the SMS assist us in our effort to gain permission so that the project may proceed. We will not proceed further with this project until this issue is resolved.

If you have any questions, or wish to discuss this issue further, please contact me. I can be reached at (802)434-3350.

Sincerely,

TWIN STATE ENVIRONMENTAL CORPORATION

Jennifer von Rohr

Jennifer von Rohr
Project Manager

cc: Raymond Pentkowski, Addison-Rutland Supervisory Union.

jvr\c:projects\benson\11695ltr.doc

ATTACHMENT 2

LABORATORY REPORT

ChemServe
ENVIRONMENTAL ANALYSTS

317 Elm Street
Milford, N.H. 03055
(603) 673-5440
FAX (603) 673-0366

March 20, 1995

MAR 23 REC'D

Ms. Jennifer von Rohr
Twin State Environmental
P O Box 719
Richmond VT 05477

Job Name	**:**	**Benson Town Garage**	**Laboratory #**	**:**	**C03-95-16**
Job #	**:**	**94-106**	**Purchase Order #**	**:**	**94-106**
Location	**:**	**Benson, VT**	**Control #**	**:**	**11197**

Dear Ms. von Rohr,

Enclosed please find the laboratory results for the above referenced samples which were received by the Chemserve sample custodian, under chain of custody control number 11197 on March 3, 1995. Samples were collected by Jennifer von Rohr on March 2, 1995. Any abnormalities to the samples would be noted on the enclosed chain of custody document or laboratory report form. Chemserve follows protocols for analysis corresponding to the methods referenced unless a modification is noted. Unless otherwise stated, all holding times, preservation techniques and container types are analogous with those outlined by the U.S. EPA.

A formal quality assurance/quality control QA/QC program is maintained and updated by Chemserve on a routine basis. This QA/QC manual is available upon request.

This report is not valid without a completed Chemserve chain of custody with the corresponding control number, attached.

If you have questions or concerns regarding this analysis, please feel free to contact me.

Sincerely,

Jay W. Chrystal
President/Laboratory Director

Enclosures

OFFICIAL SEAL STATE CERTIFIED

ChemServe
ENVIRONMENTAL ANALYSIS

VOLATILE ORGANIC ANALYSIS
EPA METHOD 8020

CUSTOMER: TWIN STATE ENVIRONMENTAL CORP.

LAB#: C03-95-16

SAMPLE LOCATION: BENSON TOWN GARAGE BENSON, VT

JOB#: 94-106

SAMPLE IDENTITY: MW-2

CONTROL #: 11197

DATE SAMPLED: 3/02/95

DATE REC'D: 3/03/95

DATE ANALYZED: 3/13/95

MATRIX: LIQUID

PERCENT MOISTURE: N/A

COMPOUND	CONCENTRATION (UG/L)	DETECTION LIMIT MULTIPLIER: (UG/L) X 1
BENZENE	BDL	1
METHYL-TERTIARY-BUTYL ETHER	BDL	1
TOLUENE	8	1
ETHYLBENZENE	7	1
TOTAL XYLENES	84	1

99

BDL = BELOW DETECTION LIMIT

CERTIFIED BY: _____

ChemServe
ENVIRONMENTAL ANALYSIS

VOLATILE ORGANIC ANALYSIS
EPA METHOD 8020

CUSTOMER: TWIN STATE ENVIRONMENTAL CORP.

LAB#: C03-95-16

SAMPLE LOCATION: BENSON TOWN GARAGE BENSON, VT

JOB#: 94-106

SAMPLE IDENTITY: MW-3

CONTROL #: 11197

DATE SAMPLED: 3/02/95

DATE REC'D: 3/03/95

DATE ANALYZED: 3/13/95

MATRIX: LIQUID

PERCENT MOISTURE: N/A

COMPOUND	CONCENTRATION (UG/L)	DETECTION LIMIT MULTIPLIER: (UG/L) X 5
BENZENE	100	1
METHYL-TERTIARY-BUTYL ETHER	BDL	1
TOLUENE	420	1
ETHYLBENZENE	465	1
TOTAL XYLENES	2,130	1
	3115	

BDL = BELOW DETECTION LIMIT

CERTIFIED BY: _____

ChemServe
ENVIRONMENTAL ANALYSIS

VOLATILE ORGANIC ANALYSIS
EPA METHOD 8020

CUSTOMER: TWIN STATE ENVIRONMENTAL CORP.

LAB#: C03-95-16

SAMPLE LOCATION: BENSON TOWN GARAGE BENSON, VT

JOB#: 94-106

SAMPLE IDENTITY: MW-203

CONTROL #: 11197

DATE SAMPLED: 3/02/95

DATE REC'D: 3/03/95

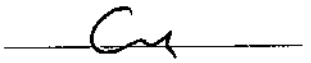
DATE ANALYZED: 3/13/95

MATRIX: LIQUID

PERCENT MOISTURE: N/A

COMPOUND	CONCENTRATION (UG/L)	DETECTION LIMIT MULTIPLIER: (UG/L) X 1
BENZENE	BDL	1
METHYL-TERTIARY-BUTYL ETHER	BDL	1
TOLUENE	BDL	1
ETHYLBENZENE	BDL	1
TOTAL XYLENES	BDL	1

BDL = BELOW DETECTION LIMIT

CERTIFIED BY: 

ChemServe
ENVIRONMENTAL ANALYSIS

VOLATILE ORGANIC ANALYSIS
EPA METHOD 8020

CUSTOMER: TWIN STATE ENVIRONMENTAL CORP.

LAB#: C03-95-16

SAMPLE LOCATION: BENSON TOWN GARAGE BENSON, VT

JOB#: 94-106

SAMPLE IDENTITY: MW-202

CONTROL #: 11197

DATE SAMPLED: 3/02/95

DATE REC'D: 3/03/95

DATE ANALYZED: 3/13/95

MATRIX: LIQUID

PERCENT MOISTURE: N/A

COMPOUND	CONCENTRATION (UG/L)	DETECTION LIMIT MULTIPLIER: (UG/L) X 1
BENZENE	2	1
METHYL-TERTIARY-BUTYL ETHER	BDL	1
TOLUENE	BDL	1
ETHYLBENZENE	BDL	1
TOTAL XYLENES	BDL	1

BDL = BELOW DETECTION LIMIT

CERTIFIED BY: _____

ChemServe
ENVIRONMENTAL ANALYSIS

VOLATILE ORGANIC ANALYSIS
EPA METHOD 8020

CUSTOMER: TWIN STATE ENVIRONMENTAL CORP.

LAB#: C03-95-16

SAMPLE LOCATION: BENSON TOWN GARAGE BENSON, VT

JOB#: 94-106

SAMPLE IDENTITY: MW-202D

CONTROL #: 11197

DATE SAMPLED: 3/02/95

DATE REC'D: 3/03/95

DATE ANALYZED: 3/13/95

MATRIX: LIQUID

PERCENT MOISTURE: N/A

COMPOUND	CONCENTRATION (UG/L)	DETECTION LIMIT MULTIPLIER: (UG/L) X 1
BENZENE	2	1
METHYL-TERTIARY-BUTYL ETHER	BDL	1
TOLUENE	BDL	1
ETHYLBENZENE	BDL	1
TOTAL XYLENES	BDL	1

BDL = BELOW DETECTION LIMIT

CERTIFIED BY: _____

ChemServe
ENVIRONMENTAL ANALYSIS

VOLATILE ORGANIC ANALYSIS
EPA METHOD 8020

CUSTOMER: TWIN STATE ENVIRONMENTAL CORP.

LAB#: C03-95-16

SAMPLE LOCATION: BENSON TOWN GARAGE BENSON, VT

JOB#: 94-106

SAMPLE IDENTITY: TRIP BLANK

CONTROL #: 11197

DATE SAMPLED: 3/02/95

DATE REC'D: 3/03/95

DATE ANALYZED: 3/13/95

MATRIX: LIQUID

PERCENT MOISTURE: N/A

COMPOUND	CONCENTRATION (UG/L)	DETECTION LIMIT MULTIPLIER: (UG/L) X 1
BENZENE	BDL	1
METHYL-TERTIARY-BUTYL ETHER	BDL	1
TOLUENE	BDL	1
ETHYLBENZENE	BDL	1
TOTAL XYLENES	BDL	1

BDL = BELOW DETECTION LIMIT

CERTIFIED BY: Cn

ChemServe
ENVIRONMENTAL ANALYSIS

Quality Control Data

Chain of Custody Record

Certification

ChemServe
ENVIRONMENTAL ANALYSTS

SPIKE RECOVERY FORM
EPA METHOD 8020

CUSTOMER: TWIN STATE ENVIRONMENTAL CORP.

LAB#: C03-95-16

SAMPLE LOCATION: BENSON TOWN GARAGE BENSON, VT

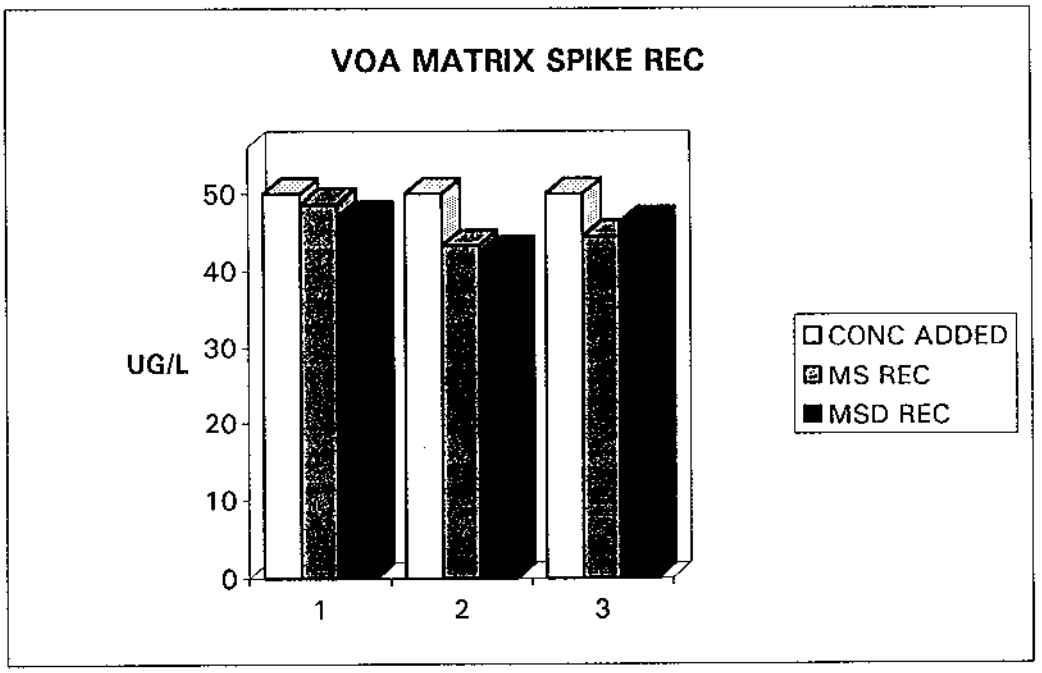
JOB#: 94-106

SAMPLE IDENTITY: QC SPIKES / 11197

CONTROL #: 11197

DATE ANALYZED: 3/13/95

COMPOUND	CONC ADDED (UG/L)	AMT REC (UG/L)	DUP AMT REC (UG/L)	%REC	DUP % REC	%DIFF
BENZENE	50	48.73	47.03	97%	94%	3%
TOLUENE	50	43.30	42.42	87%	85%	2%
CHLOROBENZENE	50	44.51	46.37	89%	93%	4%



CONTROL LIMITS +,- 25%

C03-95-16 3/15/95

CONTROL NO. 11197

ChemServe ENVIRONMENTAL ANALYSTS

317 Elm Street
Milford, NH 03055
(603) 673-5440
FAX (603) 673-0366

CHAIN OF CUSTODY

Ⓐ CUSTOMER INFORMATION

CUSTOMER: TSEC

ADDRESS: ~~P.O. Box 719~~, Richmond, VT 05477

TELEPHONE: 802-434-3350

CONTACT PERSON: Jennifer von Rohr

P.O. NUMBER:

Ⓑ PROJECT INFORMATION

JOB NAME: Benson Town Garage

JOB NUMBER: 94-106

LOCATION: Benson, VT

TELEPHONE: 802-434-3350

CONTACT PERSON: (PRINT)
Jennifer von Rohr

Ⓒ SAMPLE INFORMATION

TURNAROUND TIME: (CIRCLE ONE)

(STANDARD) RUSH

RUSH T.A.T. _____ (Check with lab)

Ⓓ STATION #	Ⓔ SAMPLE IDENTIFICATION & LOCATION	Ⓕ DATE COLLECTED	Ⓖ TIME COLLECTED	Ⓗ SAMPLE TYPE GRAB	Ⓗ SAMPLE TYPE COMP	Ⓘ MATRIX SOLID (S) LIQUID (L) COMBINED (C) HAZARD (H)	Ⓙ # OF CONTAINERS	Ⓚ CONTAINER & PRESERVATIVE 40ml VOA	Ⓛ ANALYSIS
	MW-2	3/2/95	1140	X		L	2	X	8020
	MW-3	3/2/95	1115	X		L	2	X	8020
	MW-203	3/2/95	1125	X		L	2	X	8020
	MW-202	3/2/95	1100	X		L	2	X	8020
	MW-202D	3/2/95	1110	X		L	2	X	8020
	Trip Blank	3/2/95	1145	X		L	2	X	8020

Ⓜ CUSTODY

(PRINT NAME)	SIGNATURE	MILITARY DATE/TIME
SAMPLER: Jennifer von Rohr	Jennifer von Rohr	3/2/95/1419
RELINQUISHED: Jennifer von Rohr		3/2/95 1419
RECEIVED:		MILITARY DATE/TIME:
RELINQUISHED:		MILITARY DATE/TIME:
RECEIVED FOR LABORATORY:		MILITARY DATE/TIME: 3/3/95 1330

LAB USE ONLY

A B C D E F G H I J K L M

The State of New Hampshire
Department of Environmental Services

CERTIFICATE OF APPROVAL
Drinking Water Analysis

Issued to
Chemserve, Inc.

Located at
Elm Street, Milford, NH

Under the provisions of the Regulations in Env-C300
for the following analyses:

FULL CERTIFICATION: Total Coliform by Membrane Filtration, Fecal Coliform by Membrane Filtration, Colilert-MPN, Metals by Graphite Furnace, Metals by ICP, Mercury, Nitrate-N, Nitrite-N, Turbidity, Total Filterable Residue, Calcium, Alkalinity, Sodium, Sulfate, Total Cyanide, Trihalomethanes, Volatile Organics, Vinyl Chloride, and EDB.

PROVISIONAL CERTIFICATION: Fluoride, pH, Corrosivity, Insecticides (Compliance List), and DBCP.

CERTIFICATE NUMBER: 100894-A

DATE OF ISSUE: December 3, 1994

EXPIRATION DATE: December 2, 1995

Charles H. Hayes
Certifying Officer

The State of New Hampshire
Department of Environmental Services

CERTIFICATE OF APPROVAL
Wastewater Analysis

Issued to
Chemserve, Inc.

Located at
Elm Street, Milford, NH

Under the provisions of the Regulations in Env-C300
for the following analyses:

FULL CERTIFICATION: Total Coliform by Membrane Filtration, Fecal Coliform by Membrane Filtration, ICP Metals, Metals by Graphite Furnace, Mercury, pH, TDS, Total Hardness, Calcium, Magnesium, Sodium, Potassium, Total Alkalinity, Chloride, Fluoride, Sulfate, Ammonia, Nitrate-N, Orthophosphate, TKN, Total Phosphorus, COD, BOD, Total Cyanide, Non-Filterable Residue, Total Phenolics, PCBs in Water, PCBs in Oil, Pesticides, and Volatile Organics.

PROVISIONAL CERTIFICATION: Oil & Grease.

CERTIFICATE NUMBER: 100894-B

DATE OF ISSUE: December 3, 1994

EXPIRATION DATE: December 2, 1995

Charles H. Hayes
Certifying Officer